

Study Guide Unit C Sections 1 & 2

Answer the following questions as completely as possible. Remember, this study guide is to help you be successful on your Science unit test.

1. What are 5 basic needs that we as humans must have? (p 183)
2. What does 'sustainable' mean? (p 187)
3. What are the 3 states of matter? (191)
4. What two changes can happen to water at 0°C ? (p 192)
5. What two changes can happen to water at 100°C ? (p 192)
6. What do we need to add or take away from matter to cause a change of state? (p 191)
7. What is kinetic energy? (p 194)
8. Why do 'hot' particles require the most space? (p 194)
9. Looking at the 3 states of matter (liquids, gases, solids), what is the correct order from *greatest* movement of particles to *least* movement of particles?
10. What is thermal energy? (p 198)
11. If you have a cup of soup, and a pot of soup both heated to 40°C , which one will have more thermal energy? Why? (p 198)
12. What happens when you heat a solid, liquid or gas? (think about our 3 experiments) (p 203)

13. Why are telephone wires hung loosely over telephone poles? Think about your answer to number 12) What would happen to the wires if they weren't hung loosely?

14. What makes something a good insulator? Give 3 examples of good insulators. (p 211)

15. What makes something a good conductor? Give 2 examples of good conductors. (p 211)

16. What would happen if you placed hot water drops and cold water drops into room temperature water? (p 213)

17. What are the invisible waves that transfer heat through radiation called? (p 217)

18. Think of a heat technology you use today. How is this different from 100 years ago? (p 185)

19. Define **conduction**, **convection** and **radiation**.

20. Why do you think pop and juice bottles are never filled all the way to the top? (p 206)